

# Enhancing Students' Knowledge of HIV/AIDS through Peer Education Activities: A Case Study of One Awarded Chinese Normal University

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*The research is financed by Education Department of Yunnan. No. 2022J0651*

## Abstract

Yunnan Normal University has received awards for HIV/AIDS education and prevention among Chinese universities. Therefore, exploring their education methods and activities could provide a guideline for other universities to develop their education plan. This Single-Case Study has three objectives: 1) to study peer education activities increasing students' learning about HIV/AIDS and safe sex practice in Yunnan Normal University, 2) to review HIV/AIDS and safe sex learning content discussed in its Peer education program, and 3) to study major aspects contributing to the success of students' learning about HIV/AIDS prevention and safe sex practice through a peer education program. Three data collection techniques were a semi-structured interview, observation, and document review. The participants include six teachers who have worked in HIV/AIDS education or safe sex education activities for more than five years and nine students in grade 4. The research results include 1) healthy living perspectives and sexual morality are the essential contents of HIV/AIDS education in Chinese universities, 2) a good relationship between the educators and learners is vital to eliminate embarrassment when teaching sensitive knowledge, 3) organizing activities by well-trained peer educators is one of the most effective methods when conducting HIV/AIDS education.

**Keywords:** Peer education activities, HIV/AIDS education, Awarded University, Chinese Normal University

**DOI:** 10.7176/JEP/13-27-03

**Publication date:** September 30<sup>th</sup> 2022

## 1. Introduction

HIV/AIDS education in Chinese universities started around 2002 (China Daily, 2013). Pre-college education in China is focused on scholarly studies. Recent surveys indicate that about half of college students received sex education, which is usually minimal [does not include precautions on HIV and sexually transmitted diseases (STDs)], conservative, and heteronormative (which perpetuates a stigma associated with homosexuality and HIV infection) (Li, Jiang, and Zhang, 2019). The number of newly diagnosed college students has seen an annual growth rate ranging from 30 to 50% over the past several years. In China, the lack of comprehensive sexuality education is a major barrier to an effective response and open discussion of sex and sexual health is still taboo (Avert, 2019).

Chinese Normal University is a type of higher education institute which is mainly responsible for training students to be professional teachers. The university also takes accountability in preparing these pre-service teachers with significant knowledge of HIV/AIDS (Shi, 2013). Not only is it essential for the university to make sure the HIV/AIDS education of their new student teachers, but also the students must be able to pass on the HIV/AIDS knowledge to their younger students (Shi, 2013). While most teacher training universities have a health education department developing their own HIV/AIDS lessons to teach their students, some have a health care center offering medical services, healthcare training programs, and free health consultations to staff and students (Sun, et al, 2016). However, some universities have been so successful that they could receive some awards for the contribution of improving HIV/AIDS education and prevention to their staff and students, some could not.

To promote the development of drug control and AIDS prevention, this selected Normal University held teacher training, public activities, and investigations about HIV/AIDS (Shi, 2013). Therefore, the selected Normal University has received a significant award for HIV/AIDS education and prevention. It has also been chosen as an HIV/AIDS sentinel surveillance center for students. This university's safe sex education, peer education, and teacher training activities are the most successful, well-known teaching methods regarding HIV/AIDS education and prevention (Shi, 2013).

Exploring the practice of peer education towards HIV/AIDS education shared from healthcare professionals, practitioners, and the final year students in one Normal university receiving an HIV/AIDS education award can, therefore, allow the practical lessons learned to be shared with other universities.

## **2. Research objectives**

2.1 To study peer education activities increasing students' learning about HIV/AIDS and safe sex practice in one Chinese Normal University.

2.2 To review HIV/AIDS and safe sex learning content discussed in a Peer education program of this university.

2.3 To study major aspects contributing to the success of students' learning of HIV/AIDS prevention and safe sex practice in this university.

## **3. Literature review**

### **3.1 HIV/AIDS education patterns in Chinese universities**

To prevent HIV/AIDS from spreading and protect university students, HIV/AIDS educators and experts organized educational methods to promote HIV/AIDS education in Chinese universities. A health education course (compulsory /optional) is one of Chinese universities' traditional HIV/AIDS education methods. The teaching contents (He, et al, 2013) generally consisted of: a) the current HIV/AIDS epidemic situation, b) the harm of HIV/AIDS, c) HIV/AIDS clinical symptoms and infection routes, d) self-protection methods, e) safe sex education, f) knowledge of blood donation, g) knowledge of drug control, h) expert lectures and consulting services.

With the development of HIV/AIDS education in recent years, some Chinese universities have promoted different education techniques to make health education courses more interesting to university students. For instance, microfilm made on HIV/AIDS health education (Liang, et al, 2017) was successfully applied in the health education courses of a Chinese university. HIV/AIDS education through a case study (Chen, et al, 2015) was another positive teaching method of health education courses. The teaching contents of case study education emphasize "menstruation, masturbation, penis size" and "sexual problems, sexual psychology disease" (Chen, et al, 2015). The evaluation reflected that using a case study in HIV/AIDS education could resonate with all the students and encourage them to participate in watching and analyzing, which could improve their desire to learn and enhance their knowledge (Chen, et al, 2015).

### **3.2 Peer education**

Peer education is another famous HIV/AIDS education pattern in Chinese universities (Guo, et al, 2009). Peer education means organizing people with similar age, background, experience, gender, social status and other characteristics to share knowledge, attitude, and practice (Guo, et al, 2009; He, et al, 2017). Generally, the process of peer education includes (He, et al, 2017; Lu and Zhao, 2016; Peng, et al, 2014): a) teaching the university students who want to be volunteer peer educators for HIV/AIDS prevention, self-protection, and safe sex knowledge, b) training the volunteer peer educators teaching methods, classroom games and so on, c) after training, the volunteer peer educators should have HIV/AIDS education courses from their teachers, then offer individual consulting services for their classmates and roommates, holding HIV/AIDS-related activities after class. The teaching contents of peer education consist of the HIV/AIDS epidemic situation; the harm of HIV/AIDS; routes of HIV/AIDS infection; mother-to-child transmission; Sexually Transmitted Diseases (STD) related knowledge; HIV/AIDS detection; safe sex training, especially condom use; the attitudes to HIV/AIDS and PLHIV group. Sensitive knowledge, especially condom use practice, has been taught by peer education methods (Lv and Peng, 2014; He, et al, 2017).

Furthermore, to improve the quality of peer education training, several kinds of activities have been organized to train peer educators. Sun, et al (2016) organized peer education training by applying a series of participatory activities reflecting

HIV/AIDS-related knowledge, attitudes, and behavior. These include group brainstorming, card games, wildfire games, platoon games, and condom use practices. Lu and Zhao (2016) found that role-play education methods allow university students to think, express and organize their performance in a confidential way.

### **3.3 Extracurricular activities**

To assist HIV/AIDS education, some extracurricular activities have been found arranged in many Chinese universities (He, et al, 2013). According to Quan, et al (2018), the significant HIV/AIDS learning activities include a) watching HIV/AIDS-related movies, b) visiting PLHIV groups, c) playing games which could build good relationships among the university students, d) organizing public welfare activities both inside and outside universities, e) promoting free HIV blood testing and worry-free consultation to students, f) displaying and contributing leaflets/ posters/ bulletin boards to students, g) to post HIV/AIDS-related knowledge on university websites or Weibo/ WeChat platforms. Student community activities emphasize the risky behaviors among homosexual behavior and the use of condoms.

In recent years, the WeChat platform has become an important HIV/AIDS education source. For instance, Zhang (2018) introduced and evaluated WeChat platform education in a Chinese university. This education method highlighted the right attitude for homosexual sex behavior and People Who Live with HIV (PLHIV)

because practices are influenced by people's knowledge and attitude.

According to these relevant researches, it could be concluded that a comprehensive education program should emphasize the empowerment of young people to develop personal skills that are needed to adopt abstinence. To build a comfortable environment and good quality relationships in the classroom could encourage the teachers and students to discuss sensitive knowledge or experiences. HIV/AIDS education programs should address the potential negative consequences of sex and regard healthy sexuality as a normal part of the life course (Smith and Harrison, 2013).

#### **4. Research Methodology**

##### **4.1 Research Design**

Since the purpose of this study is to explore the instructional design of Safe Sex education and the HIV/AIDS knowledge contributions through practice in the peer education programs towards HIV/AIDS education shared by the HIV/AIDS Education awarded Normal University, the researcher needs to develop a good relationship with the participants and to collect the actual words of the participants by applying interviews. The answers to philosophy questions proposed by Maykut and Morehouse (1994) suggested that this study has to use a qualitative research design. Moreover, Yin (2014) suggested that the Single-Case Study was an appropriate design when having a critical, extreme or unusual, common, revelatory, or longitudinal case. The selected Chinese university in this study had received an award in HIV/AIDS education and prevention. Therefore, the researchers follow the qualitative approach applying a Single-Case Study strategy.

##### **4.2 Co-researchers (Research Participants)**

In this study, the researcher applied purposively co-researcher identified technique to assist her in ensuring the correctness and insightful information during the data collecting process. The researchers applied an in-depth interview technique to collect rich information from co-researchers who could provide vibrant details. The data collection instrument was a developed interview schedule, observations, and documents review. To ensure the rich information given by experienced participants, only co-researchers meeting the criteria are invited and included in the study. These consisted of nine fourth-year students and six teachers. The teachers have been working in the designing and implementation team in the HIV/AIDS and safe sex education training programs for more than five years.

##### **4.3 Data collection techniques and instruments**

As suggested by Johnson and Christenson (2004), the detailed description obtained through multiple methods of data collection is highly recommended when applying single case study strategy. Therefore, this research applied semi-structured interviews, observations, and document reviews. During this study, the researcher observed four classes of safe sex education and twice attended peer education. The researcher decided to take the role of an observer-as-participant during observation.

##### **4.4 Data collection process**

The steps of the data collection process in this study included 1) identifying the Chinese Normal University receiving an HIV/AIDS Education award. 2) Getting approval of data collection from the university management team – the researchers sent an email to introduce themselves and explain the research projects (purposes, data collection process, a data analysis plan, rights of co-researchers, and a research report plan. 3) contacting potential co-researchers suggested by involving the management team as informants meeting the set of criteria – six teachers working in developing HIV/AIDS training contents and designing safe sex education learning programs for over five years, and nine fourth-year students studying in the selected Normal University 4) contacting the potential co-researchers, introducing the research projects and making an invitation to participate in the research project. 5) visiting the university and spending around 45 to 60 minutes interviewing the co-researchers, observing students' learning, and reviewing relevant materials.

##### **4.5 Data Analysis**

In this study, the steps of Case Study data analysis suggested by Marshall and Rossman (2006), Yin (2011), and Creswell (1998) were performed. These were 1) transcribing interview conversations into a text format. 2) coding 'Level 1. 3) classifying the codes into different themes and explaining the ideas of each theme in longer sentences. 4) clustering themes into categories and developing a theoretical construct based on the categories and themes. 5) comparing and revising the categories and themes to ensure all the critical information was included. 6) describing the case and its context directly and developing naturalistic generalizations.

##### **4.6 Trustworthiness**

To ensure the quality standards in this study (Credibility, Applicability, Consistency, and Confirmability), the

researchers applied the following strategies: 1) developing a good relationship with the participants; 2) listening to multiple voices from teachers and students; 3) extending the prolonged period of the interview to ensure the saturation of data; 4) collecting data from different types of data source – both from teachers and students; 5) using different types of methods to collect data – semi-structured interview, observation, and documents review; 6) ensuring participants were willing to take part in the project and acknowledging their right to withdraw from the study.

#### 4.7 Ethical Protocol

To prevent potential bias and harm in this study, the researcher get approval of research design, methods and data collection instruments from the EDU ethical research committee, and it has been approval by three committee member.

### 5. Research findings

#### 5.1 Addressing the first research question: “How have the peer education activities and the safe sex education been arranged among university students?”

“Peer education” refers to training a group of volunteer students about safe sex knowledge, HIV/AIDS-related knowledge, attitude, and teaching methods and techniques. The training teacher group consists of teachers who have science, medical or psychology education backgrounds. Peer education activities have been conducted by the Life Science Faculty and Mental Health Center.

Peer education is organized in 4 steps in the selected university: 1) Recruiting volunteer students to be trained in HIV/AIDS topics. The Life Science Faculty is the department that organizes peer education in the whole university. All undergraduate students in the Life Science Faculty have been trained as peer educators. In April, the Life Science Faculty posts the recruitment information through the Student Affairs Center. This project plans to select 200 students from all faculties at one time. 2) Organizing HIV/AIDS knowledge and teaching ability training activities to volunteer students. The volunteer students would obtain knowledge and attitudes about HIV/AIDS and the ability to teach and conduct activities. They must take a knowledge and teaching ability test after completing their program. The volunteer students who can pass the test would become peer educators. 3) Organizing class meetings of different themes in discussing HIV/AIDS by peer educators. When becoming professional peer educators, these students have to organize class meetings related to HIV/AIDS for their classmates. The peer educators have to design the contents and teaching methods together in advance. After they prepare the teaching materials and teaching contents, the peer educators have to teach HIV/AIDS-related knowledge, attitudes, and safe sex practices to their classmates. 4) Organizing HIV/ AIDS teaching activities outside the university by peer educators. The peer educators have to participate in HIV/AIDS education outside the university. For instance, some peer educators conducted class meetings on HIV/AIDS in primary and secondary schools to help the students understand the situation and the problem, the policy towards HIV/AIDS, and how to protect themselves. The peer educators are also encouraged to carry out investigations on HIV/AIDS education and practices in various HIV/AIDS-related departments during the vacation in their hometown. Some quotations are presented below:

- *//...We also hope that students can use this summer vacation to do social practice in their hometown and carry out investigations on drug control and HIV/AIDS prevention...T4//*
- *//The works of peer educators include conducting HIV / AIDS education to students and residences around...T6//*

#### 5.2 Addressing the second research question: “What are the learning contents towards HIV/AIDS and safe sex that have been discussed in the Peer education program at the selected university?”

##### 5.2.1 Learning knowledge related to HIV/AIDS

To enhance the knowledge of HIV/AIDS among university students, the peer educators undertake HIV/AIDS education according to the following topics: 1) Scientific knowledge concerning HIV/AIDS. For instance, the virus's incubation period, the features of the disease, and how the virus infects the human immune system. 2) The transmission routes of HIV/AIDS and sexually transmitted diseases. 3) HIV/AIDS epidemic situation in the world, as well as in Chinese universities. 4) Life management and social adaptation. 5) Psychological health and sexual morality. The students need to know how to solve problems without using extreme methods. 6) Safe sex knowledge. Including condom use practice, reproduction, contraception, sexual violence, drug-taking, and unwanted pregnancy. The peer educators highlighted the harms of abortion and the risks of unprotected sex. 7) Detection ways and self-test knowledge. The 72-hour precautions after high-risk behaviours and self-test have been highlighted. The university arranges blood testing activities to allow students to conduct voluntary testing after they have written an informed letter. 8) Treatment methods of HIV/AIDS. The students have been taught where and what to do if they are infected with HIV. Some direct quotations could be reviewed as follows:

- *//So we focus on telling students how to do self-test, where to test, treatment, and the 72-hour*

*precautions...T3//*

- *//We also talk about safe sex education, we teach them how to use condoms with bananas, and some videos...T6//*

### 5.2.2 Instilling correct attitudes relating to HIV/AIDS and safe sex

To improve the attitude towards life and sex among university students, to enhance their sexual morality, as well as to correct their attitudes towards people living with HIV/AIDS, peer educators make efforts to develop these attitudes relating to HIV/AIDS to the students: 1) Attitudes towards people living with HIV/AIDS. Respecting and being friendly have been highlighted during education. The peer educators organize role-play activities, group discussions and case studies to enhance the correct attitudes to get along with PLHIV. 2) Life perspective and sexual morality. Peer educators applied a variety of cases to emphasize the responsibility about life and sex among university students. An activity named "one week couple" has been successfully organized in the past five years. This activity aims to guide the undergraduate students to understand the right way to get along with each other in a relationship. The quotations can be reviewed below:

- *//we teach the students to not discriminate against people living with HIV/AIDS. At least, this is also a reflection of the quality of a university student in our university...T7//*
- *//I teach the concept of sex, the role of sex in our entire life, and then the understanding of the sex culture in China from ancient to the present, then the physiological structure...T1//*

### 5.3 Addressing the third research question: "What are the major aspects contributing to the success of students' learning of HIV/AIDS prevention and safe sex practice through peer education in this university?"

#### 5.3.1 Organizing safe sex practice and blood test activity on the campus among university students.

Since "sexual transmission" is still found as the primary cause of HIV/AIDS infection among educated people, it somehow indicates that students need to be trained and link their knowledge with their real-life situations. In this condition, the peer educators pay great attention to training the students about safe sex protection practices. Their active activities include how to wear a condom, how to use HIV/AIDS blood test kits. Usually, peer educators demonstrate how to use a condom and blood test kits in advance. Sometimes, the peer educators also play some cartoons about HIV/AIDS-related knowledge and attitudes and condom use practice in the class. In addition, blood test events have been organized every semester on the campus by doctors from University Hospital. The students were encouraged to test themselves. After the blood test event, more than 30% of students in the classroom tested their blood. There are some quotations as below:

- *//We guide students to make behavioural changes through some activities, such as how to use condoms, how to use HIV/AIDS blood test kits...T6//*
- *// If we positively participate in blood testing, the students who had risky behaviour would have the courage to test themselves so that they could have chances to know their situation...T7//*

#### 5.3.2 Offering HIV/AIDS knowledge and counselling service both online and offline

To ensure the students would ask for counselling when they undertake risky behaviour or have a psychological problem, the peer educators in this university offer online and offline services to students. For instance, the well-trained educators leave their phone number and WeChat ID with the students. If the students have any embarrassing questions, they can contact the peer educators to ask for help. Group counselling activities have also been organized on the campus. All the students are welcomed in a friendly way to attend this activity. Some learning resources, such as the WeChat platform, University Broadcasts, University Website, and Publicity Board, have been applied to post knowledge related to HIV/AIDS. The peer educators believe that offering knowledge and counselling service could enhance the knowledge that students learn in the class and eliminate the embarrassment of the students to study sensitive knowledge. Some quotations could be reviewed below:

- *//Through new media such as mobile phone text messages, QQ, WeChat, and face-to-face consultation...T5//*
- *//We also provide psychological counselling for students and organize some relevant events. We offered group counselling through this kind of activity...T8//*

### 6. Discussions

Using Peer Education activities to increase students' learning about HIV/AIDS is an excellent education method in an awarded Chinese university. Therefore, following this university's teaching plan, teaching contents, and teaching methods could be a guideline for other universities to develop their effective organizational development plan. The research results and the achievements are discussed below:

The excellent HIV/ AIDS education and prevention activities are the events that peer educators have conducted during peer education. The well-trained peer educators have organized HIV/AIDS-related activities that included class meetings, sitcom performances, and group counselling to enhance the HIV/ AIDS knowledge of the other students. They have also conducted HIV/ AIDS knowledge competitions, such as painting

competitions and Q&A competitions.

These activities were also highlighted in other relevant research. Wang (2011) emphasized that organizing “Sexual Health Education” is the best method to promote HIV/AIDS education in universities in Yunnan province. The suggestions of their study highlighted that the universities have to recruit volunteer students and train them to be peer educators. Peer education is an effective method because university students feel more comfortable discussing sensitive knowledge with educators of the same generation. Lu and Zhao (2016) applied the role-play method when conducting HIV/AIDS education and peer educator training. They highlighted that using the role-play method can positively stimulate students to participate in learning HIV/AIDS knowledge. The students have to learn not only HIV/AIDS-related knowledge and attitudes but also skills of communicating, imitating roles, and handling emergencies.

The teaching contents of peer education highlighted enhancing the knowledge and correct attitudes related to HIV/AIDS of the students and guiding them to build up healthy living perspectives and sexual morality. As we know, our life perspectives are affected by the original family, living environment, friend groups, and education level. It is difficult to change the students’ behaviour and attitudes. To solve this problem, the peer educators in this university choose to enhance the sense of responsibility, sexual morality and encourage students to test their blood. It has been reported by the medical doctor working for the university that more than 10% of the 1st year students tested their blood.

Yan, et al (2016) agreed that the improvement of knowledge level and the change of attitude could not ensure the change of behaviour. During HIV/AIDS prevention, it is important to teach relevant knowledge and organize behaviour intervention activities. Lv and Peng (2014) suggested that promoting HIV/AIDS education and prevention is teaching knowledge related to HIV/AIDS and guiding the students about healthy living perspectives and sexual morality. Comprehensive HIV/AIDS education and prevention could help students cultivate healthy behaviours and lifestyles. More importantly, the university students’ sense of social responsibility can eliminate discrimination against people living with HIV/AIDS. It will also have a positive social effect on controlling the HIV/AIDS epidemic situation.

Offering a friendly learning environment could eliminate embarrassment and build a close relationship between peer educators and learners. The students agreed that they feel comfortable and relaxed when studying HIV/AIDS knowledge and playing games with peer educators. They decided that a good relationship between educators and students could encourage students to ask more questions, provide more suggestions, and ask for help when they have risky behaviours. Therefore, to build a good relationship with students, the peer educators have shown concern and understanding to the students.

Zhao (2018) emphasized that peer education is an effective method to improve the knowledge and attitudes about HIV/AIDS among university students. Health counselling services and publicity activities organized by peer educators have effectively attracted more students to learn health knowledge and life skills. Sun (2016) highlighted that it is essential to build a good relationship between teachers and students before HIV/AIDS education. When planning safe sex education courses, healthy life perspectives and sexual morality must be discussed as critical knowledge.

## 7. Conclusion

In conclusion, the findings provide a thorough presentation of the HIV/AIDS peer education curriculum and teaching plans, as well as a picture of several activities such as class meetings, sitcom performances, Q&A competitions, and group counseling that were held at this prestigious Chinese university during the study period. Among the most important strategies, it is stressed the significance of increasing understanding and instilling appropriate attitudes toward HIV/AIDS among students. The primary goal of the instructional materials is to help students through the steps they should take to have a healthy life and to be conscious of sexual morality. Additionally, creating a welcoming learning atmosphere and communicating their concerns to their team are important approaches for reducing students’ humiliation and promoting positive relationships among their peers. Other Chinese colleges desiring to build and implement their own effective HIV/AIDS education programs should benefit from the findings, which suggest that the HIV/AIDS Peer education organized activities could be used as instructional guides for those institutions.

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